CLAIMS

1. A method for transmitting data in a channel of a wireless communication system, comprising:

packaging a data payload into a plurality of subpackets;

sequentially transmitting a first portion of the plurality of subpackets in accordance with predetermined delays; and

sequentially transmitting a second portion of the plurality of subpackets in accordance with channel conditions.

2. The method of Claim 1, wherein the step of transmitting the second portion of the plurality of subpackets is performed at a peak of a Rayleigh fading envelope, wherein the peak is determined through a threshold value.

3. The method of Claim 1, wherein each subpacket of the second portion of the plurality of subpackets have a different size from the subpackets in the first portion.

4. A method for transmitting data in a channel of a wireless communication system, comprising:

packaging a data payload into a plurality of subpackets;

sequentially transmitting a first portion of the plurality of subpackets in accordance with channel conditions; and

sequentially transmitting a second portion of the plurality of subpackets in accordance with predetermined delays.

5. The method of Claim 4, wherein the step of transmitting the first portion of the plurality of subpackets is performed at a peak of a Rayleigh fading envelope, wherein the peak is determined through a threshold value.

6. The method of Claim 4, wherein each subpacket of the second portion of the plurality of subpackets have a different size from the subpackets in the first portion.

7. A method for transmitting data in a channel of a wireless communication system, comprising:

packaging a data payload into a plurality of subpackets, wherein the data payload is destined for a remote station;

performing a velocity determination of the remote station;

if the velocity of the remote station is slow or stationary, then transmitting the plurality of subpackets sequentially in accordance with channel conditions; and

if the velocity of the remote station is neither slow nor stationary, then transmitting the plurality of subpackets sequentially in accordance with predetermined delays.

8. The method of Claim 7, further comprising the step of updating the velocity determination of the remote station;

if the updated velocity of the remote station indicates a change from slow or stationary, then transmitting a remaining portion of the plurality of subpackets in accordance with predetermined delays; and

if the updated velocity of the remote station indicates a change from neither slow nor stationary, then transmitting a remaining portion of the plurality of subpackets in accordance with channel conditions.

9. A method for transmitting data in a channel of a wireless communication system, comprising:

repackaging a data payload into a plurality of redundant subpackets;

transmitting a first subpacket to a remote station, wherein the first subpacket includes a preamble;

if an acknowledgement message is not received, transmitting a second subpacket at a predetermined time delay to the remote station, wherein the second subpacket does not include a preamble; and

if an acknowledgement message for the second subpacket is not received, transmitting a remaining portion of the plurality of redundant subpackets in accordance with channel conditions until an acknowledgement message is received, wherein each of the remaining portion of the plurality of redundant subpackets includes a preamble.

10. The method of 9, wherein the remaining portion of the plurality of redundant subpackets are repackaged into a plurality of larger subpackets.

11. A method for transmitting data in a channel of a wireless communication system, comprising:

packaging a data payload into a plurality of subpackets;

transmitting a first subpacket to a remote station;

if the channel conditions are optimal, transmitting a remaining portion of the plurality of subpackets to the remote station; and

if the channel conditions are not optimal within a predetermined time duration, then transmitting a remaining portion of the plurality of subpackets during unfavorable channel conditions.

12. The method of Claim 11, wherein the step of transmitting the remaining portion of the plurality of subpackets if the channel conditions are not optimal is given a higher priority than a new transmission to a second remote station.

13. The method of Claim 11, wherein the remaining portion of the plurality of subpackets are resized.

14. Apparatus for transmitting data in a channel of a wireless communication system, comprising:

means for packaging a data payload into a plurality of subpackets;

means for deciding whether to sequentially transmit a first portion of the plurality of subpackets in accordance with predetermined delays or sequentially transmit a second portion of the plurality of subpackets in accordance with channel conditions.

15. The apparatus of Claim 14, wherein the means for deciding uses a Rayleigh fading envelope to decide whether channel conditions are favorable, wherein the channel conditions are favorable if the Rayleigh fading envelope is above a predetermined threshold.

16. The apparatus of Claim 14, wherein each subpacket of the second portion of the plurality of subpackets have a different size from the subpackets in the first portion.

17. Apparatus for transmitting data in a channel of a wireless communication system, comprising:

means for packaging a data payload into a plurality of subpackets;

means for deciding whether to sequentially transmit a first portion of the plurality of subpackets in accordance with channel conditions or sequentially transmit a second portion of the plurality of subpackets in accordance with predetermined delays.

18. The apparatus of Claim 17, wherein the means for deciding uses a Rayleigh fading envelope to decide whether channel conditions are favorable, wherein the channel conditions are favorable if the Rayleigh fading envelope is above a predetermined threshold.

19. The apparatus of Claim 17, wherein each subpacket of the second portion of the plurality of subpackets have a different size from the subpackets in the first portion.

20. Apparatus for transmitting data in a channel of a wireless communication system, comprising:

means for packaging a data payload into a plurality of subpackets, wherein the data payload is destined for a remote station;

means for performing a velocity determination of the remote station; and

means for receiving the plurality of subpackets and the velocity determination of the remote station, and further for:

if the velocity of the remote station is slow or stationary, then transmitting the plurality of subpackets sequentially in accordance with channel conditions; and

if the velocity of the remote station is neither slow nor stationary, then transmitting the plurality of subpackets sequentially in accordance with predetermined delays.

21. The apparatus of Claim 20, wherein the means for performing a velocity determination is further for providing an updated velocity estimate.

22. Apparatus for transmitting data in a channel of a wireless communication system, comprising:

means for repackaging a data payload into a plurality of redundant subpackets;

means for receiving the plurality of redundant subpackets, for transmitting a first subpacket to a remote station, wherein the first subpacket includes a preamble, and for;

if an acknowledgement message is not received, transmitting a second subpacket at a predetermined time delay to the remote station, wherein the second subpacket does not include a preamble; and

if an acknowledgement message for the second subpacket is not received, transmitting a remaining portion of the plurality of redundant subpackets in accordance with channel conditions until an acknowledgement message is received, wherein each of the remaining portion of the plurality of redundant subpackets includes a preamble.

23. The apparatus of 22, wherein the means for repackaging the data payload can also repackage the plurality of redundant subpackets into a plurality of larger subpackets.

24. Apparatus for transmitting data in a channel of a wireless communication system, comprising:

means for packaging a data payload into a plurality of subpackets;

means for transmitting a plurality of subpackets to a remote station;

means for deciding, after the means for transmitting a plurality of subpackets has transmitted a first subpacket, whether:

if the channel conditions are optimal, to transmit a remaining portion of the plurality of subpackets to the remote station; and

if the channel conditions are not optimal within a predetermined time duration, then to transmit a remaining portion of the plurality of subpackets during unfavorable channel conditions.

25. The apparatus of Claim 24, wherein the means for deciding is configured to grant a higher priority to the remaining portion of the plurality of subpackets than a new transmission to a second remote station.